

CLAIMS

1. An outdoor apparatus comprising:

a box-shaped main casing body that has an opening formed at a front face and houses at least one electronic circuit board in an interior thereof; and

a box-shaped front panel that covers the front opening of the main casing body, wherein

an upper plate of the main casing body having a front face that protrudes upward and has a plate-like rearward protrusion that protrudes rearward from the upward protrusion, and

the front panel having a bent portion that is bent substantially perpendicularly from a front panel upper plate that opposes the upward protrusion of the main casing body and contacts a tip of the rearward protrusion of the main casing body.

2. An outdoor apparatus comprising:

a box-shaped main casing body that has an opening formed at a front face and that houses at least one electronic circuit board in an interior thereof; and

a box-shaped front panel that covers the front opening of the main casing body, wherein

each of a left side plate and a right side plate of the main casing body having formed thereon at least one protrusion that extends vertically and substantially contacts a corresponding side plate among a left side plate and a right side plate of the front panel

3. An outdoor apparatus comprising:

a box-shaped main casing body that has an opening formed at a front face and that houses at least one electronic circuit board in an interior thereof; and

a box-shaped front panel that covers the front opening of the main casing body, and

each of a left side plate and a right side plate of the front panel having formed thereon at least one
5 protrusion that extends vertically and substantially contacts a corresponding side plate among a left side plate and a right side plate of the main casing body.

4. An outdoor apparatus comprising:

10 a box-shaped main casing body that has an opening formed at a front face and that houses at least one electronic circuit board; and

a box-shaped front panel that covers the front opening of the main casing body, and

15 each of a left side plate and a right side plate of the main casing body having formed thereon at least one protrusion that extends vertically and substantially contacts a corresponding side plate among a left side plate and a right side plate of the front panel, and each of the
20 left side plate and the right side plate of the front panel having formed thereon at least one protrusion that extends vertically and substantially contacts a corresponding side plate among the left side plate and the right side plate of the main casing body.

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5. The outdoor apparatus according to any one of claims 2 to 4, wherein at least one vertically extending protrusions is formed on each of the left side plate and the right side plate at positions near and at an outer side of a tip
30 portion of the corresponding side plate among the left side plate and the right side plate of the front panel.

6. An outdoor apparatus that incorporates a heat sink and

has a box-shaped casing, having a plurality of aligned ventilation holes formed on an upper plate and a lower plate so as to oppose the heat sink, and

5 wherein inter-hole margins of the upper plate of the casing that are formed between ventilation holes are recessed downward with respect to other portions of the upper plate.

7. The outdoor apparatus according to claim 6, wherein
10 the heat sink includes a base plate; and a plurality of radiating fins that protrude from the base plate and extend vertically; and upper surfaces of the radiating fins are set to positions lower than an upper surface of the base plate so that steps are formed between the upper surface of
15 the base plate and the upper surfaces of the radiating fins.

8. The outdoor apparatus according to claim 7, wherein the inter-hole margins are recessed downward with respect to the other portions of the upper plate to positions lower
20 than the upper surface of the base plate.

9. The outdoor apparatus according to any one of claims 6 to 8, wherein the heat sink is fixed to the casing with separate legs and sealing members are disposed between the
25 legs and the heat sink and the casing.

10. An outdoor apparatus comprising:
a box-shaped main casing body that has an opening formed at a front face, houses a heat sink and at least one
30 electronic circuit board in an interior thereof, and has the aligned ventilation holes formed on an upper plate and a lower plate so as to oppose the heat sink;

the heat sink that is disposed at a rear portion of

the main casing body and has a base plate and radiating portions;

the electronic circuit board that is mounted on the base plate of the heat sink;

5 a box-like inner cover that is positioned inside the main casing body and covers the electronic circuit board; and

a box-shaped front panel that covers the front opening of the main casing body, wherein

10 in the main casing body, a region in which the heat sink is disposed and which is exposed to an exterior via the ventilation holes is sealed with respect to a region in which the electronic circuit board is positioned, and

an upper plate of the inner cover is inclined downward
15 from a rear side to a front side.

11. The outdoor apparatus according to claim 10, wherein a small planar heat sink, on which are mounted electronic circuits that are electrically connected to the electronic
20 circuit board, contact the base plate of the heat sink and a keel that is inclined to a left or right direction is formed on an upper portion of the small planar heat sink.